

**METHOD AND APPARATUS FOR DETERMINING LOCATION
IN A SATELLITE COMMUNICATION SYSTEM**

Abstract

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A receiver unit (400) capable of determining its approximate location using a first and a second satellite transmission source (12 & 14) and, a first terrestrial transmission source (18) includes a receiver (402) and decoder (450) for receiving and decoding a first synchronization pulse from the first satellite, a second synchronization pulse from the satellite signal, and a third synchronization pulse from the terrestrial source. The receiver unit further includes a counter (412) for measuring a first delay between the first synchronization pulse and the second synchronization pulse and for measuring a second delay between one of the first synchronization pulse or the second synchronization pulse and the third synchronization pulse. The receiver unit further includes a processor (421) for determining an east-west constant delay line based on the first delay and for determining a north-south constant delay line based on the second delay.

TOP SECRET - THREE EYES ONLY